

WHAT IS CLAIMED IS:

1. A data processing apparatus which has a control panel for specifying a processing operation and which is operated in accordance with an indication from the control panel and an externally supplied command,  
5 comprising:

storage means for storing control-panel data representing external appearance of at least principal portions of the control panel; and

10 transfer means for transferring the control-panel data that has been stored in said storage means.

2. The apparatus according to claim 1, wherein said control panel has a plurality of switch means, and the control-panel data includes function and position  
15 information regarding at least some of said switch means.

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3. A remote control method for controlling a remotely controllable apparatus from an external device connected to the remotely controllable apparatus, wherein the  
20 apparatus has a control panel for specifying a processing operation and which is operated in accordance with an indication from the control panel and/or an externally supplied command, said method comprising the steps of:

25 displaying, on the external device, a virtual control panel having an appearance identical with or

similar to at least part of the control panel;

generating a command of said remotely controllable apparatus corresponding to an operation on said virtual control panel; and

5 supplying the generated command to said remotely controllable apparatus.

4. A remote control system comprising: a remotely controllable apparatus which has a control panel for specifying a processing operation and which is operated  
10 in accordance with an indication from the control panel and/or an externally supplied command; an information processing apparatus capable of supplying a command to said remotely controllable apparatus; and a display unit and input device connected to said information  
15 processing apparatus; wherein said information processing apparatus includes:

display means for displaying, on the display unit, a virtual control panel having an appearance identical with or similar to at least part of the control panel;

20 discriminating means for establishing correspondence between a command, which operation of the control panel causes to be applied to said remotely controllable apparatus, and an operation performed on the virtual control panel; and

25 communication means for supplying said remotely controllable apparatus with the command corresponding to

the operation performed on said virtual control panel.

5. The system according to claim 4, wherein the operation is designation of a position.

6. The system according to claim 4, wherein said  
5 display means displays said virtual control panel based  
upon control-panel information obtained from said  
remotely controllable apparatus.

7. The system according to claim 4, wherein said display means displays said virtual control panel based upon control-panel information possessed by said information processing apparatus.

8. The system according to claim 7, wherein the control-panel information is read out of a recording medium on which it has been recorded in advance and is stored in non-volatile storage means utilizable by said information processing apparatus.

9. The system according to claim 4, wherein said remotely controllable apparatus is an image forming apparatus.

20 10. The system according to claim 4, wherein said  
informing apparatus has:

document reading means for reading a document; and

document sensing means for sensing whether or not a document is present in said document reading means;

25        wherein when said document sensing means senses  
that a document is present in said document reading

means, said display means displays, on said display unit, said virtual control panel having an appearance identical with or similar to at least part of the control panel.

- 5 11. The system according to claim 4, further comprising an image input device connected to said information processing apparatus for reading the image of a document and supplying said information processing apparatus with an image signal representing the image read, said image  
10 input device having document sensing means for sensing whether or not the document is present;

wherein when said document sensing means senses that the document is present, said display means displays, on said display unit, said virtual control  
15 panel having an appearance identical with or similar to at least part of the control panel.

12. The system according to claim 4, wherein configuration of said virtual control panel is capable of being altered.

- 20 13. A storage medium storing program code of a remote control method for controlling a remotely controllable apparatus from an external device connected to the remotely controllable apparatus, wherein the apparatus has a control panel for specifying a processing  
25 operation and which is operated in accordance with an indication from the control panel and/or an externally

supplied command, comprising:

program code for displaying, on the external device, a virtual control panel having an appearance identical with or similar to at least part of the  
5 control panel;

program code for generating a command of said remotely controllable apparatus corresponding to an operation on said virtual control panel; and

program code for supplying the generated command to  
10 said remotely controllable apparatus.

14. A data processing system comprising: a data processing apparatus which has a control panel for specifying a processing operation and which is operated in accordance with an indication from the control panel  
15 and/or an externally supplied command; an information processing apparatus capable of supplying a command to said data processing apparatus; a display unit and input device connected to said information processing apparatus; and an image input device connected to said  
20 information processing apparatus for reading the image of a document and supplying said information processing apparatus with an image signal representing the image read; wherein said information processing apparatus includes:

25 display means for displaying, on the display unit, a virtual control panel having an appearance identical

with or similar to at least part of the control panel;  
discriminating means for establishing  
correspondence between a command, which operation of the  
control panel causes to be applied to said data  
5 processing apparatus, and an operation performed on the  
virtual control panel; and

communication means for supplying said data  
processing apparatus with the command corresponding to  
the operation performed on said virtual control panel;  
10 and

said image input means has document sensing means  
for sensing whether or not the document is present;

wherein when said document sensing means senses  
that the document is present, said display means  
15 displays, on said display unit, said virtual control  
panel having an appearance identical with or similar to  
at least part of the control panel.

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15. The system according to claim 14, wherein said  
display means displays, on said display unit, said  
20 virtual control panel corresponding to prescribed data  
that has been entered.

16. The system according to claim 14, wherein said  
prescribed data is authorization data concerning each  
user who utilizes said data processing system.

25 17. An information processing apparatus in a data  
processing system which includes: a data processing

apparatus which has a control panel for specifying a processing operation and which is operated in accordance with an indication from the control panel and/or an externally supplied command; the information processing  
5 apparatus, which is capable of supplying a command to said data processing apparatus; a display unit and input device connected to said information processing apparatus; and an image input device connected to said information processing apparatus for reading the image  
10 of a document and supplying said information processing apparatus with an image signal representing the image read; said information processing apparatus comprising:

display means for displaying, on the display unit, a virtual control panel having an appearance identical  
15 with or similar to at least part of the control panel;

discriminating means for establishing correspondence between a command, which operation of the control panel causes to be applied to said data processing apparatus, and an operation performed on the  
20 virtual control panel; and

communication means for supplying said data processing apparatus with the command corresponding to the operation performed on said virtual control panel.  
18. The apparatus according to claim 16, wherein said  
25 display means displays, on said display unit, said virtual control panel corresponding to prescribed data

that has been entered.

19. The apparatus according to claim 18, wherein said prescribed data is authorization data concerning each user who utilizes said data processing system.

5 20. A method of controlling an information processing apparatus in a data processing system which includes: a data processing apparatus which has a control panel for specifying a processing operation and which is operated in accordance with an indication from the control panel  
10 and/or an externally supplied command; the information processing apparatus, which is capable of supplying a command to said data processing apparatus; a display unit and input device connected to said information processing apparatus; and an image input device  
15 connected to said information processing apparatus for reading the image of a document and supplying said information processing apparatus with an image signal representing the image read; said method comprising:

20 a displaying step of displaying, on the display unit, a virtual control panel having an appearance identical with or similar to at least part of the control panel;

a discriminating step of establishing  
correspondence between a command, which operation of the  
25 control panel causes to be applied to said data processing apparatus, and an operation performed on the



virtual control panel; and

a communication step of supplying said data processing apparatus with the command corresponding to the operation performed on said virtual control panel.

5 21. The method according to claim 20, wherein said display step displays, on said display unit, said virtual control panel corresponding to prescribed data that has been entered.

22. The method according to claim 21, wherein said  
10 prescribed data is authorization data concerning each user who utilizes said data processing system.

23. A storage medium storing program code of a method of controlling an information processing apparatus in a data processing system which includes: a data  
15 processing apparatus which has a control panel for specifying a processing operation and which is operated in accordance with an indication from the control panel and/or an externally supplied command; the information processing apparatus, which is capable of supplying a  
20 command to said data processing apparatus; a display unit and input device connected to said information processing apparatus; and an image input device connected to said information processing apparatus for reading the image of a document and supplying said  
25 information processing apparatus with an image signal representing the image read; comprising:

program code for displaying, on the display unit, a virtual control panel having an appearance identical with or similar to at least part of the control panel;

program code for establishing correspondence

5 between a command, which operation of the control panel  
causes to be applied to said data processing apparatus,  
and an operation performed on the virtual control panel;  
and

program code for supplying said data processing  
10 apparatus with the command corresponding to the  
operation performed on said virtual control panel.

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